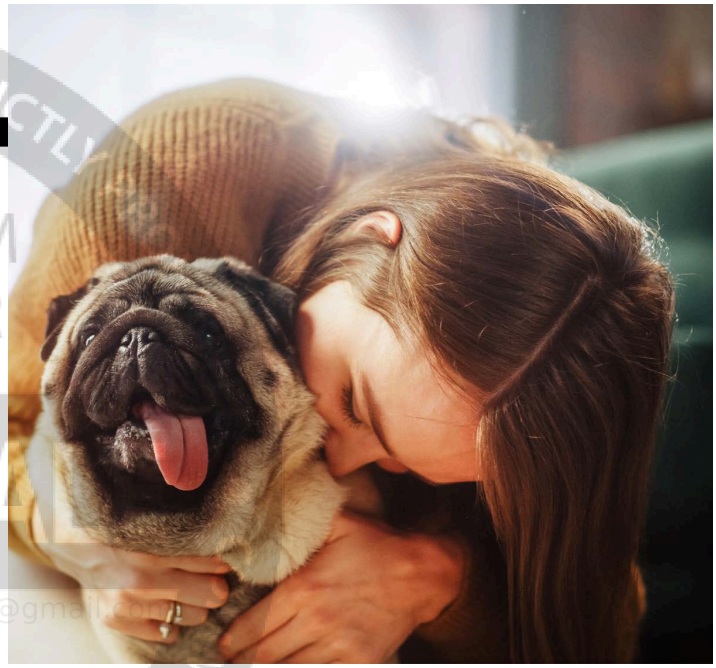
- Pets

HOT SCIENCE



The Science Behind Cute Aggression

WANTING TO SQUEEZE OR BITE AN ANIMAL'S EARS OR FEET IS CALLED CUTE AGGRESSION, AND SCIENTISTS ARE TRYING TO UNDERSTAND WHY WE DO IT.

SOME PEOPLE see something cute and want to hold it, squeeze it tight, and call it George. Others might feel an urge to take an adorable paw or floppy ear and pretend to eat it. Some may even pantomime chomping on the adorable creature while saying, "Nom, nom, nom."

But if we love something, why would we act like we're hurting it? Many of us share this desire to squeeze a cuddly animal or an adorable baby, which scientists call cute aggression. In the past few decades, scientific research into emotions has helped scientists learn why people have this unexpected response.

Cute aggression is a type of dimorphous expression, an emotional response in which a person experiences more than one emotion at the same time. The concept was first introduced in 2000 as part of a model explaining the progression of emotions. It begins with a stimulus, say your dog being cute and sitting with her paws crossed. This prompts an emotional experience, perhaps feeling overwhelmed by cuteness, and then an expressive behavior.

With dimorphous expressions, the person experiences more than one expressive behavior. They may show delight at their dog's cuteness, but also announce that their paws are so cute they want to eat them.

IT MAKES sense that adorable puppy paws can create delight. But having an urge to munch on them feels like a violent impulse that doesn't belong in the moment. Researchers theorize that dimorphous reactions occur as a way to regulate emotions when a person becomes overwhelmed. In recent years, scientists have been able to use technology to determine the neural mechanisms that occur during cute aggression.

Neuroscientist Katherine Meltzoff first decided to study cute aggression after a friend sent her a web article that humorously listed how people could self-diagnose themselves as having cute aggression. "I literally wondered, as a neuroscientist, what is happening in the brain? What emotions are responsible for this?" says Meltzoff, an associate professor at the University of California, Riverside. In a 2018 study in *Frontiers in Behavioral Neuroscience*, Meltzoff and her co-author sought to understand the neural mechanisms associated with cute aggression.

> People who are more likely to become overcome with emotions are more likely to experience cute aggression.

The team recruited 54 college students with ages between 18 and 40, and connected them to an electroencephalogram (EEG). The participants then looked at four sets of images. Two sets featured cute babies and baby animals, while two sets displayed "less cute" babies and adult animals. (The less cute pictures were computer generated, not pictures of actual babies that the researchers had deemed less adorable.)

The participants also completed questionnaires, including questions about their awareness of how they react to certain stimuli. With the EEG, the researchers could measure electrical activity within milliseconds of it occurring. They found greater activity after images of cute animals were displayed.

IN GENERAL, people who had greater neural activity after seeing cute kitties were more likely to report having a dimorphous reaction. Neurologically, Meltzoff says, the findings suggest that cute aggression involves both the emotion and reward systems.

The study also found that people who are more likely to become overwhelmed with emotions are more likely to experience cute aggression. The current theory with dimorphous emotions is that the second emotion somehow helps to regulate the overwhelming feelings and even calms the person down.

"If you are someone who sees something and thinks, 'Oh, that's cute,' but you don't feel overwhelmed, you are less likely to feel cute aggression," Meltzoff says. "But if you are someone who feels overwhelmed, that is predictive of cute aggression."

—EMILIE LE BEAU LUCCHESI

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